

It's About Time

Strand:	Measurement and Geometry
Topic:	Telling time to the nearest minute
Primary SOL:	3.9 The student will a) tell time to the nearest minute, using analog and digital clocks
Related SOL:	3.9b, 3.9c

Materials

- Paper plates
- Large wall clock with a second hand
- Index cards
- Construction paper
- Masking tape
- Brad fasteners
- Tag board
- Markers
- Time and Time Again Sorting Cards (attached)
- Time and Time Again Recording Sheet (attached)
- Telling Time Board Game Rules (attached)
- Answer Clocks for Time Telling Board Game (attached)
- Clock Handout for board game (attached)
- Time Telling Board Game (attached)

Vocabulary

a.m., analog clock, digital clock, half-hour, hour hand, hours, minute hand, minutes, p.m., quarter hour

Student/Teacher Actions: What should students be doing? What should teachers be doing?

Note: Before undertaking this activity, prepare 12 pieces of construction paper with the numbers 1 to 12 written on them. You will also need to create three sets of index cards (12 cards in each set) with various times to the nearest hour on one set, to the nearest half-hour on the second set, and to the nearest minute on the third set. Also, prepare tag-board clock hands to be used on paper plate clock faces.

Part I: To the Hour

1. Direct students' attention to a large analog wall clock with hour, minute, and second hands. Ask students to identify which hand is which, and have them explain how you can tell this on any analog clock. Remind students that when the hour hand moves from one number to the next, one hour passes. Ask students what they can do in an hour, and post responses on the board. Discuss which suggestions seem accurate.
2. Remind the class that as the minute hand moves from one tick mark to the next, one minute passes. Ask, "How long is a minute?" Have students place their heads on their desks and close their eyes. Explain that you are going to time one minute, and when

they think one minute has passed, they are to raise a hand; if they are too early, you will put their hands back down. Start timing, and lower the hands of students who raise them too soon. Clap your hands at the end of a minute. Next, have students watch the second hand go around the clock once, counting to 60 as they watch. Then, challenge students to repeat the exercise to try again to guess when the minute is up. Ask students what they can do in a minute, and post responses on the board. Discuss which suggestions seem accurate.

3. Place 12 pieces of construction paper with large numerals 1 through 12 written on them in a circle on the floor to create a large clock face. Use masking tape to secure the sheets in place. Give 12 students index cards with the times to the hour from 1 to 12 written on them. Have the class stand or sit around the clock face. Select two volunteers, one taller than the other, to stand in the center. Ask who should be the hour hand, and ask students to explain why. (The shorter student should be the hour hand because the hour hand is the shorter hand.) Ask where the shorter student should lay down and point to show 1 o'clock (to the 1). Ask where the taller student—the minute hand—should point (to the 12).

Direct students holding the index cards to take turns holding up their cards, and allow the other students to instruct the “hands students” where to point to show the times displayed. After the students have worked together to create these new times with the “hands students,” have the students explain their reasoning. After multiple students have shown a new time, you may move on to the next step. (You will be coming back to this activity later.)

4. Distribute paper plates, brad fasteners, and tag board minute and hour hands for students to make their own clock faces. Model where to place and write the 12, 3, 6, and 9 first, using a marker. At this time, ask the students what they notice about the placement of the numbers. If the minute hand moves from the 12 to the 6, how much of the clock has been covered (one-half)? If the minute hand moves from the 12 to the 3, how much of the clock has been covered (one-fourth)?
5. Then, model filling in the other numerals so they are equally spaced. Finally, model using a brad fastener to attach the tag board hands to the center of the plate. These clocks can be used in various reinforcement activities (e.g., showing times called out by the teacher).

Part II: To the Half-hour

6. Show 3 o'clock on a demonstration clock. Move the minute hand in five-minute increments halfway around the clock to 6 while the class skip counts by fives. Also, move the hour hand appropriately. Ask, “How many minutes have passed? Where does the minute hand point? Where does the hour hand point? What time is it?” Write “three-thirty (3:30)” and “half past 3” for students to see. Continue to move the minute hand around the clock to 12 while the class skip counts by fives. Also, move the hour hand. Ask, “How much time has passed this time? What time is it now?” Discuss the two ways to read time to the half-hour (3:30 and half past 3). Ask, “Where is the minute hand at half past the hour?”
7. Repeat the human clock activity from Part I with cards showing times to the half-hour.

8. Have students show times to the half-hour on their paper plate clock faces.

Part III: To the Nearest Five Minute and Minute

9. Adjust the activities in Parts I and II to reflect telling time to the nearest five minute and minute. The activities could be combined to teach both.
10. Once the activities have been completed, explain that students will be playing a game to test their knowledge of telling time. The students will work in pairs or groups to play the Telling Time board game.

Assessment

- **Questions**
 - Why is it important to know what time it is?
 - Besides reading clocks, what are some other ways to find out what time it is?
 - What are the two ways to read time to the half-hour? To the quarter-hour?
- **Journal/writing prompts**
 - You have a 4-year-old neighbor who is learning how to tell time. She wants to know what an analog clock looks like when it is 3:45 in the afternoon. Explain in detail the appearance of the clock at 3:45, and include a drawing to show her how it looks.
 - Choose an activity that happens every day at the same time, and describe it, including why it happens at that time of day.
- **Other Assessments**
 - Show students times on analog and digital clocks, and have them respond verbally or use a response board to tell the times.
 - Show students two times within the same hour (e.g., 2:15 and 2:25) on an analog clock. Have them determine which hour each time is closer to and justify their conclusions.
 - As students display times on their paper plate clocks, check to make sure they use the minute and hour hands correctly. Also, pay close attention during the human clock activity for the correct explanation of hand placement and pointing.

Extensions and Connections (for all students)

- Have students complete the Time and Time Again sorting activity, using the sorting cards and recording sheet. Students will sort a set of cards and match digital times, times written in words, and analog times. They will then show these times on the recording sheets by notating the digital times, writing the times in words, and drawing the hands in the correct positions on clock faces.

Strategies for Differentiation

- Have students use manipulatives, such as plastic clocks, to set different times to become skillful at using the minute and hour hands.
- Have students cut out pictures of clocks and watches from magazines and flyers, glue them in their notebooks, and write the displayed times next to them.

Mathematics Instructional Plan – Grade Three

- Color code the hour and minute hands to help students better differentiate between the two (blue hour hand and red minute hand).
- For students that work at a slower pace, create alternate versions of the “Telling Time” board game that have students creating times to the nearest hour, or nearest half-hour, or whatever level they are at.

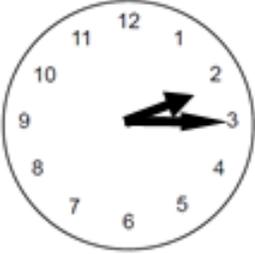
Another way to alter the game is to have students find the matching time that is asked on the board game, instead of drawing the time themselves.

Note: The following pages are intended for classroom use for students as a visual aid to learning.

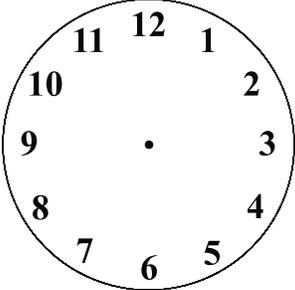
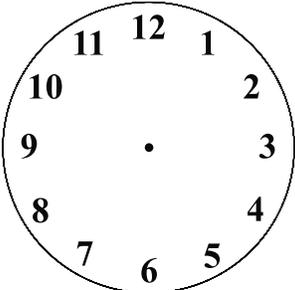
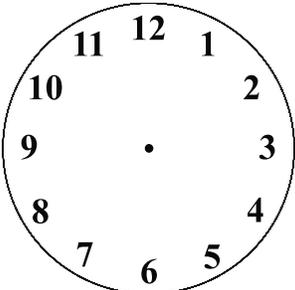
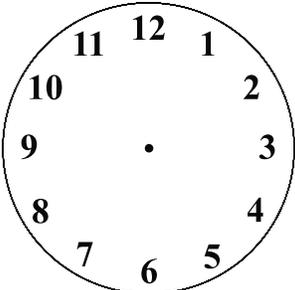
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Time and Time Again Sorting Cards

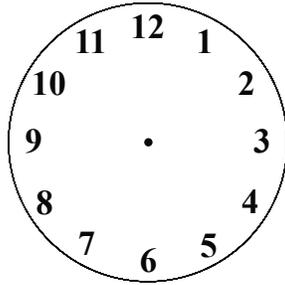
Copy on card stock, and cut out.

			
Seven thirty	Quarter past two	Three forty-five	Eleven twenty- five
7:30	2:15	3:45	11:25

Time and Time Again Recording Sheet

Analog Time	Digital Time	Time in Words
		
		
		
		

**Telling Time
Board Game Rules**

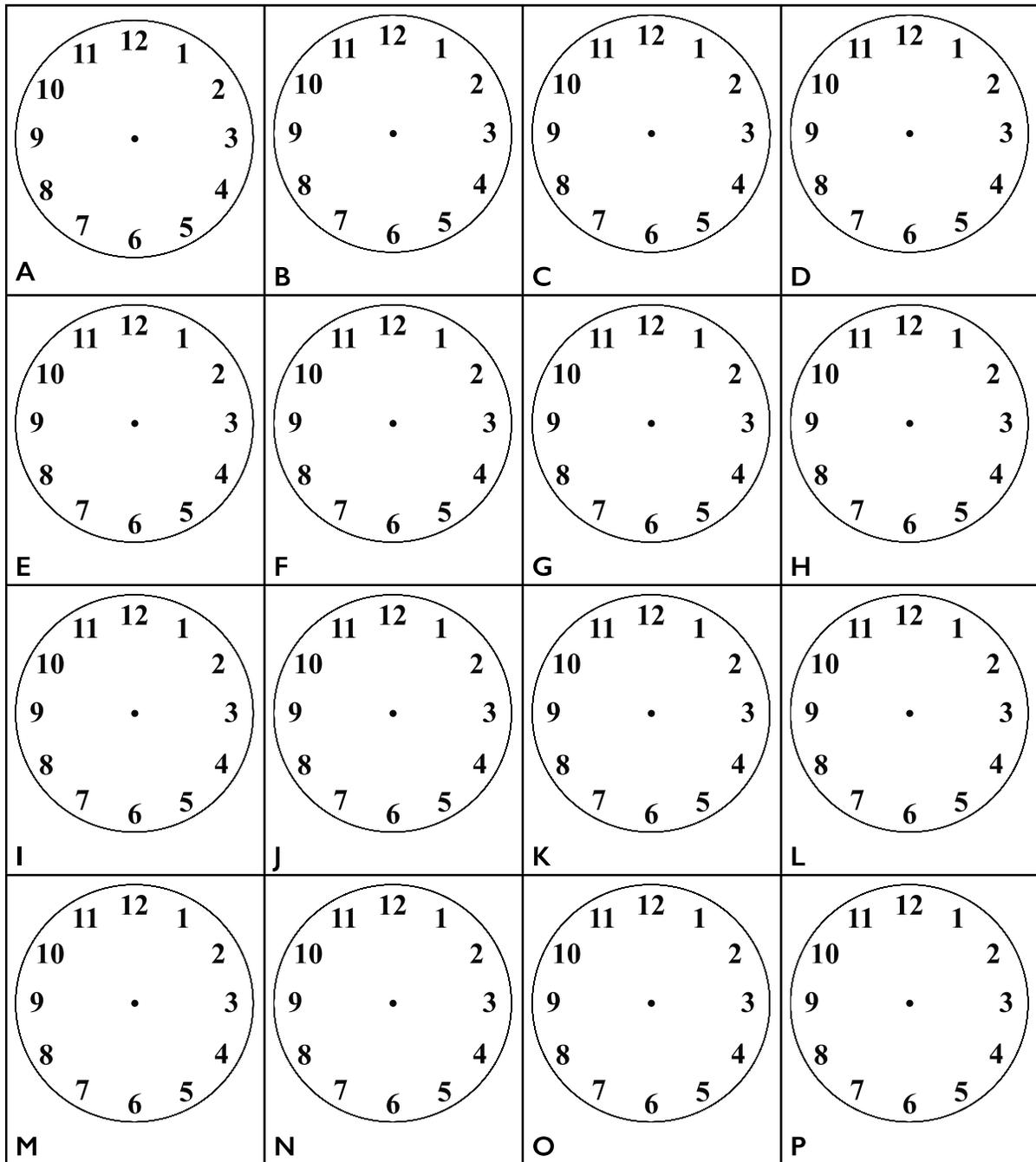


Each player will need a wipe-on/wipe-off analog clock, a dry-erase marker, a cloth for wiping off drawn hands, and a game piece to move on the game board.

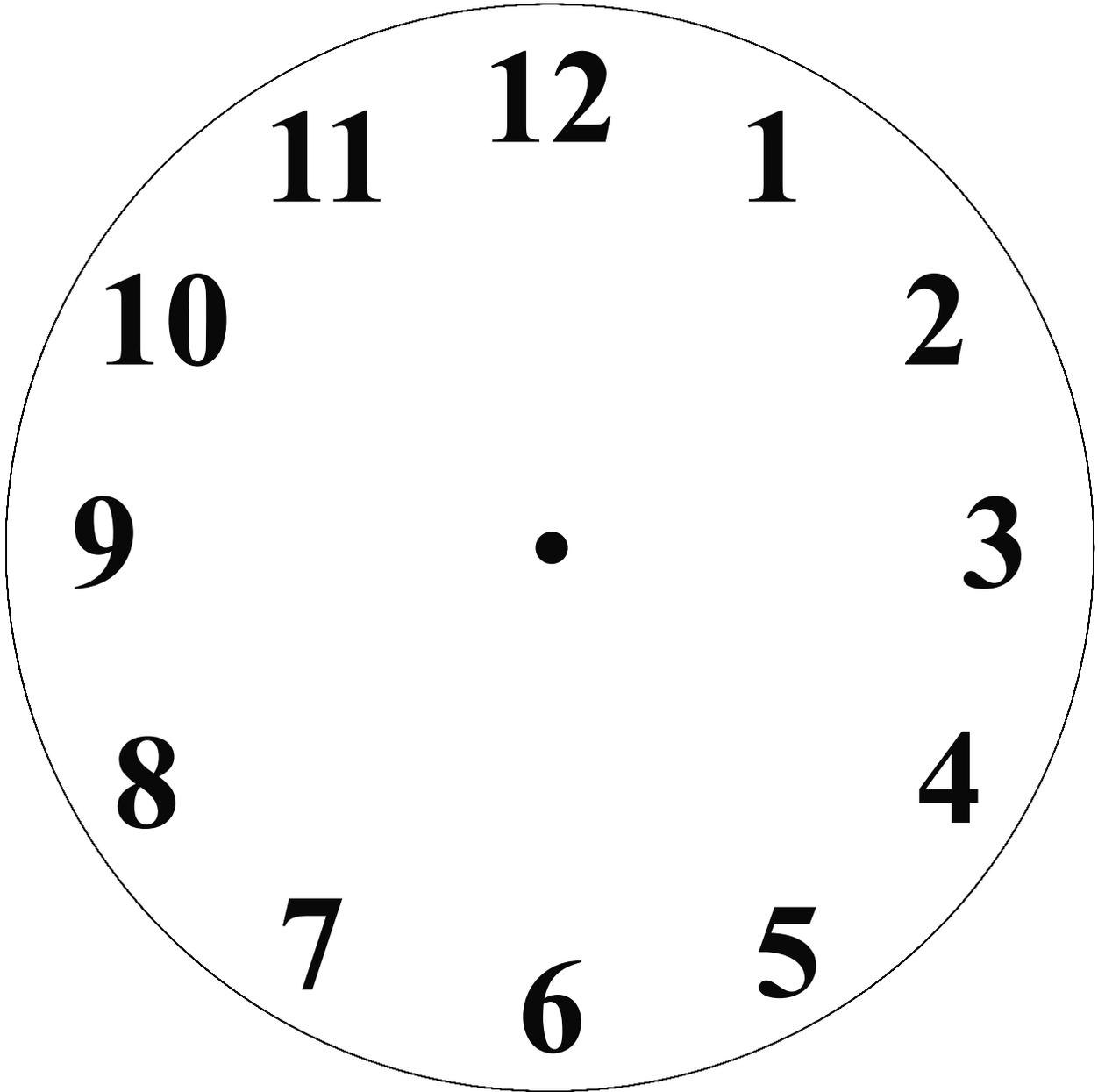
1. Each player rolls the die. The player with the largest number goes first.
2. Player 1 rolls the die and moves their game piece that number of spaces on the game board.
3. Player 1 reads the time written on the game board space.
4. Player 1 must draw hands on their analog clock to show the time that matches the time on the space. Player 2 uses the “Answer Clocks” sheet to determine whether Player 1 has correctly drawn the time. (Look for the letter on the board, and match it to the “Answer Clock” letter.)
5. If the time is drawn correctly, Player 1 gets to stay on that space. If the time is drawn incorrectly, Player 1 loses a turn.
6. The game continues until a player reaches the END.
7. If there are any disagreements between players, the teacher is the judge.

Answer Clocks for Time Telling Board Game

The teacher should write the times on these clock faces to correspond with the times written on the game board.



Clock Handout



Time Telling Game Board

START				
5 Minutes Past 2 A		11:05 M	Quarter Till 11 O'Clock N	2:40 O
3:25 B		Half Past 7 O'Clock L		Quarter Till Eight O'Clock P
10 Minutes Before 1 O'Clock C		12:35 K		5:20 Q
6:45 D		Quarter Past 5 O'Clock J		Quarter Till 6 O'Clock R
25 Minutes Till 4 O'Clock E		4:10 I		10:55 S
1:15 F	Five Thirty-Five in the Evening G	20 Minutes After 5 O'Clock H		If It Is 3:30, What Time Will It Be in 15 Minutes? T
				END